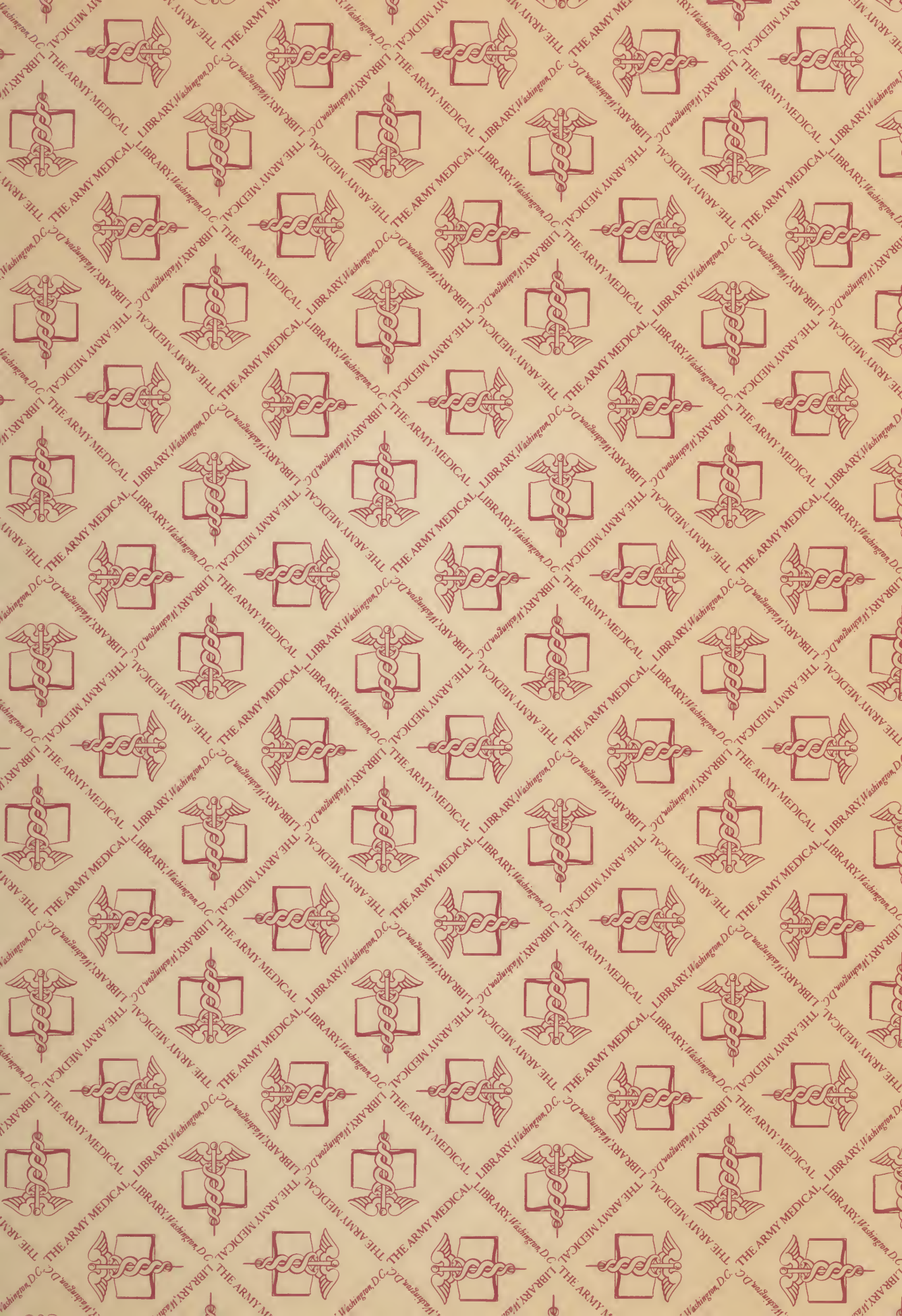
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Publication No. 65
December, 1944

CONTROL OF TUBERCULOSIS BY THE STATE

Report Pursuant to Proposal No. 162,
Sponsored by Representative William F. Gibbs
and Senator Nicholas L. Hubbard, and to
Proposal No. 190, Sponsored by
Representative William Vicars

Research Department
ILLINOIS LEGISLATIVE COUNCIL
Springfield

ILLINOIS LEGISLATIVE COUNCIL

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This report in intended to provide a factual source of information with regard to problems concerning which the General Assembly may be called upon to act. The research department of the Legislative Council is engaged in objective fact-finding under the general supervision of members of the Council, who also serve in the General Assembly. No recommendations for consideration of proposed legislation or particular policies are made by the research department.

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CONTROL OF TUBERCULOSIS BY THE STATE

Tuberculosis in the fairly recent past has held the questionable honor of having caused more deaths among mankind than any other disease. Even today, after great progress has been made in controlling the disease, some 60,000 persons die each year in the United States from this cause. Among persons from 15 to 35 years of age it is the leading cause of death.

The scientific attack on tuberculosis is quite recent and, on the basis of its achievements thus far, offers hope of complete control, if not elimination of the disease in the not too distant future. The tubercle bacillus was discovered only 62 years ago and the first sanatorium in America was not established until 1885. The first state sanatorium was established in Massachusetts in 1898.

In 1900 tuberculosis was causing 194.4 deaths per 100,000 population and ranked first among all causes of death in the United States. By 1940 the death rate from tuberculosis had been reduced to 45.9 per 100,000 population and had fallen to seventh place.

Extent of the Tuberculosis Problem and Possibilities of Control

The very substantial gains in combatting tuberculosis that occurred during the first four decades of the present century have stimulated the movement to establish ultimate control of this disease. It is believed possible that further substantial reductions in the prevalence of this disease can be achieved. As one experienced worker expressed it, the eradication of tuberculosis is absurdly simple. "Find all the cases of tuberculosis and isolate them until they are dead or non-infectious and there will be no more tuberculosis."[1]

Extent

In 1940, there were 60,428 deaths from tuberculosis in the United States.[2] This represents 4.3% of all deaths. Since rather widespread experience indicates that there are several active cases for every tuberculosis death, it may be concluded that perhaps 500,000 persons in the country suffer from this dread disease. The majority of these cases have never been reported and many victims are totally unaware that they have contracted the disease.

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1. Past and Present Trends in the Tuberculosis Movement; a Symposium of Historical Papers Presented at the 38th Annual Meeting in Philadelphia of the National Tuberculosis Association, p. 42.

2. In some vital statistics, tuberculosis of the respiratory system, which accounts for the overwhelming proportion of tuberculosis deaths, is separated from the nine other forms. To avoid complexity all forms are grouped together in the figures used in this report.

The prevalence of tuberculosis differs widely in different areas and among different groups of people. Among the factors that seem to be responsible for these variations are urbanization, race, economic status, and adequacy of state and local programs of control. Only the latter falls within the scope of this report. However, the others must never be ignored. They show themselves in the relatively high death rates of the cities, among Negroes, Indians, and Spanish-speaking peoples, and in all areas characterized by poor housing, congestion, inadequate recreational facilities, and improper nutrition.

Tuberculosis, during the 12-year period from 1932 to 1943, inclusive, caused 45,619 deaths in Illinois. The yearly figures, however, show a steady decline in tuberculosis mortality.[3] In spite of this, tuberculosis today causes more deaths than any other communicable disease.

Table 1

Tuberculosis Deaths in Illinois, 1932-1943

Year	Tuberculosis Deaths	Rate Per 100,000 Population
1932	4,291	55.8
1933	4,174	54.1
1934	4,124	53.3
1935	4,075	52.4
1936	4,050	51.9
1937	3,995	51.1
1938	3,686	47.0
1939	3,608	45.8
1940	3,654	46.2
1941	3,474	43.7
1942	3,249	41.1
1943*	3,239	42.7

* Provisional figures.

The death rate from tuberculosis in Illinois has ordinarily been slightly above the national rate. This may be explained, in part, by the fundamental factors, referred to above, which affect tuberculosis prevalence, such as the relatively high degree of urbanization in Illinois. Part of the problem in Illinois, however, has undoubtedly been due to inadequate provisions for control.

Techniques of Control

Tuberculosis can be prevented. When discovery and treatment of the disease is made in the minimal or early stages, recovery can almost be assured. On the other hand, advanced tuberculosis is serious, and the chances

3. See Table 1. The downward trend has slackened, however, and stopped entirely in 1943.

for recovery are not favorable. Early diagnosis is important, and the greater the delay in making a diagnosis after the appearance of the first symptoms, the more likely it is that the disease will be far advanced.

In 1938, a study was made of 6,906 patients who had been discharged alive from 75 public sanatoria in 1933. Of those who had been diagnosed minimal on admission to the sanatoria, 73% were still alive in 1938 while 8% were dead. The remaining 19% were not traced. For those who were far advanced on admission, only 40% were still alive in 1938 while 47% were dead. The remaining 13% were not traced. For those who were in the intermediate stage of tuberculosis upon admission, that is, the moderately advanced cases, 59% were still alive in 1938, 20% were dead, and 21% were not traced.4

Intensive case-finding, carried out among supposedly healthly people as well as those who have been exposed to open cases of tuberculosis, is but one step in breaking the chain of infection that is spread by the tubercle bacillus germ. Once a case of tuberculosis is found, care must be given to the patient, and the public must be protected from infection. Tuberculosis is not like other communicable diseases for which reasonable quarantine regulations can be established. In tuberculosis the incubation period cannot be determined and the time when infectiousness begins or ends is not predictable. The sanatorium is the answer to this administrative problem. In a sanatorium the patient is given the best chance of cure and a comfortable place for voluntary segregation where he may prevent the spread of infection among his family and friends. "The care until death of the incurable cases and the treatment of the others until they are non-infectious and taught to live within their physical limitations are the true functions of a sanatorium."5

The specific techniques for control are already numerous and new ones are constantly being developed. It is not necessary for the purposes of this report to examine them in detail. It may be useful, however, to consider them under three major headings, (1) Case-finding, (2) Sanatorium care, and (3) Education to prevent tuberculosis.

The finding of tuberculosis cases is of great importance both to the individual victim and to his fellows. Early diagnosis greatly enhances the likelihood of achieving a cure; it also, if followed by proper measures, reduces the chances of the infection being spread to others. Some medical tests for the presence of active tuberculosis are highly reliable but relatively expensive. Others are less expensive to administer. All of the tests serve particular purposes. Expanding their use would improve case-finding and, if followed by suitable measures, reduce the prevalence of the disease. The private physician occupies a strategic position in case-finding and great improvement could be secured by greater cooperation in reporting known and suspected cases. The public health nurse has great value in case-finding. In addition, such agencies as state and local health departments, school health services, industrial health agencies, special clinics, and publicity campaigns serve to expand and improve the finding of tuberculosis cases. While some

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4. A Study of Patients Discharged Alive from Tuberculosis Sanatoria in 1933, published by the National Tuberculosis Association, Social Research Series, No. 8, p. 18.

5. The Modern Attack on Tuberculosis by Henry D. Chadwick, M.D., and Alton S. Pope, M. D., p. 42.

progress has been made in case-finding, much more remains to be done.

Sanatorium care is a major technique in controlling tuberculosis. Not all cases need sanatorium care. At some stages in treatment, proper care at home can sometimes provide an acceptable substitute for sanatorium care provided the patient has learned the necessary techniques and follows them rigorously. Some general hospitals have special provision for tuberculosis patients. However, the specialized tuberculosis sanatorium has proved to be an indispensable part of the whole problem. Most patients need this care, at least for a time. The sanatorium serves to prevent infection and reduce the spread of the disease. It serves to educate the patient in how to care for himself and to protect others. In many cases it effects a cure or, at least, it succeeds in arresting the disease. It is often the center of training and research in dealing with tuberculosis as well as a diagnostic center and clinic. Its staff usually assists in case-finding and educational services.

Education has been the keynote in the tuberculosis campaign since its beginning. It is still of vital importance in the program. If all persons could learn the main facts relating to the transmission of tuberculosis much infection would be prevented. Instruction in personal hygiene, the development of good health habits, higher standards of nutrition, and other desirable attitudes and practices would tend to alleviate the disease. Constant cooperation of all agencies concerned with education and good health is most useful.

Agencies of Control

This report is concerned with the control of tuberculosis by the state. It is well to note, however, that not only the state but the federal government, the local governments, and many private organizations serve as agencies of tuberculosis control.

The federal government provides care for a considerable number of veterans, Indians, and other "wards" and, in addition, maintains a program of research and education on the whole problem. There are 19 tuberculosis sanatoria operated by the federal government within the United States. These sanatoria have a total of 4,681 beds. In addition, 45 federal hospitals provide 4,699 beds in facilities which make definite provision for tuberculosis patients. Besides these the federal government is responsible for sanatoria located in the District of Columbia, Alaska, the Philippine Islands, and Puerto Rico. All told the U. S. government provides 12,838 beds for the care of persons suffering from tuberculosis.

In addition, the federal government provides national leadership through the work of the Public Health Service, a part of the Federal Security Agency. For many years the Public Health Service has conducted research on tuberculosis and other health problems, cooperated with state and local health agencies, and disseminated health information. It recently established a Division of Tuberculosis Control which is today the central agency in the federal tuberculosis program. Congress has authorized an appropriation for this office amounting to $10,000,000 for the fiscal year 1944-45, but no funds have yet been made available. The bulk of this authorized appropriation and similar appropriations thereafter will be available for allotments to states on a matching basis. Such funds will probably be used chiefly for

case-finding, the operation of clinics, and other field control services rather than for sanatorium care.

In practically every state the county is an important agency in tuberculosis control. Some states, including Illinois, have relied chiefly on the county to provide sanatorium care and such other services as are offered. The city, also, to a lesser degree, has been concerned with tuberculosis control and most of the larger cities maintain municipal sanatoria. In a few cases, there has been joint city-county control.

Much of the campaign against tuberculosis has been conducted by private agencies. Out of the total of 699 institutions in the country with facilities for sanatorium or hospital care of tuberculosis patients, 184 institutions are private or semi-private. They provide a total of 16,469 beds, approximately one-sixth of the nation's tuberculosis beds.

The National Tuberculosis Association, organized in 1904, is an organization of physicians and laymen engaged in conducting a constant campaign against tuberculosis. It coordinates the activities of the 48 state tuberculosis associations, the 1600 county and city associations, and the 800 smaller committees. Its functions are: (1) Research, (2) Education and publicity, (3) Standard-making, (4) Publishing, (5) Cooperation and coordination, (6) Training and placement of personnel, and (7) Field service. Its activities are financed chiefly through the sale of Christmas Seals, although some income is obtained from memberships and donations. It operates in practically all states through state organizations, such as the Illinois Tuberculosis Association, founded in 1905.

The American Trudeau Society was formed in 1905 under the name of the American Sanatorium Association. This organization concentrates its attention on the problem of sanatorium care. There are many societies in the general field of health which devote part of their energies to the tuberculosis control program.

All of the various agencies which share in the program serve to aid and encourage the campaign. The remainder of this report will deal with the particular part of the tuberculosis program which is filled by the state.

State Programs for Tuberculosis Control

"Public health is purchasable. Within natural limitations a community can determine its own death-rate." This dictum of the man, Dr. Herman M. Biggs, who in 1893 laid the ground-work for the administrative control of tuberculosis by health departments, is often quoted. The truth of the statement is adequately borne out by the death-rate of the various states when aligned with state expenditures for tuberculosis activities. To find this alignment, and as a matter of convenience in discussing the tuberculosis programs of the various states, the states have been grouped into four groups of 12 states each, according to the lowness of the state's mortality rate. Group A contains those states with the lowest mortality rates while Group D includes those with the highest death-rate.

Comparisons By Groups

Table 2 gives a recapitulation of the detailed information which is contained in Tables 3 and 4. There were 60,428 deaths from all forms of tuberculosis in the entire United States in 1940 out of a population of 131,669,275. This meant a national mortality rate of 45.9 deaths per 100,000 population. In relation to these 60,428 deaths, there were 88,346 beds for tuberculosis patients in the entire country for 1942. This number of beds includes all beds, state, county, city, private and semi-private, with the exception of the federal beds. This gives a ratio of 1.46 beds per tuberculosis death in 1940. Medical authorities and tuberculosis workers have set a standard of two beds per tuberculosis death, as a minimum requirement. By this standard, the country as a whole lags in providing for its tuberculosis patients. Even when the federal beds are considered, the ratio is only 1.62 beds per death.

The states spent approximately $24,122,600 for tuberculosis activities in 1939. This produces an average annual expenditure of $390 per tuberculosis death (based on 61,809 deaths in 1939).

Group A - The 12 States With the Lowest Mortality Rates

Group A of the states, populated by 12.0% of the country's inhabitants, has only 6.0% of all tuberculosis deaths. The average mortality rate for this group is 23.0 deaths per 100,000 population in contrast to the national mortality rate of 45.9 deaths. Group A has an average ratio of 2.24 beds per death which is above the standard of 2.0 beds per tuberculosis death. Five of the 12 states in Group A have 2.0 beds or more while one state has more than the national average of 1.46 beds but under 2.0 beds. The other six states have less than 1.46 beds. Most of the states in this group have a relatively high proportion of rural residents which leads one to expect a low tuberculosis rate.

Group A of the states spend almost two and one-third as much per tuberculosis death as the national average of $390. Group A spent $903 per death with 11 of the 12 states spending more than the national average. Despite the relatively low incidence of tuberculosis in this group of states, the expenditures for tuberculosis control are at a relatively high level.

Table 2

Per Cent Distribution of Deaths, Beds, and State Expenditures
(Recapitulation of Tables 3 and 4)

	Per Cent of Total Population	Per Cent of Total Deaths	Mortality Rate Per 100,000 Population	Ratio of Beds Per Death	Number of States Having: 2.00 Beds or More	1.46 to 1.99 Beds	Less than 1.46 Beds	Annual State Expenditure Per Death	Number of States Spending Over $390 Per Death	Under $390 Per Death
Group A	12.0%	6.0%	23.0	2.24	5	1	6	$903	11	1
Group B	30.3%	26.0%	39.4	1.90	6	2	4	667	9	3
Group C	33.6%	34.7%	47.3	1.39	2	0	10	263	3	9
Group D	23.6%	32.6%	63.4	1.02	2	0	10	175	2	9*

Note: The totals of several of the above columns are just short of 100%. The remaining small percentages are the amounts for the District of Columbia whose figures were included in the national totals but are not represented in any of the group amounts.

* The twelfth state in this group is Nevada for which there was no record of expenditures for tuberculosis as a separate activity.

Group B - The 12 States With the Next to the Lowest Mortality Rates

The second group of states, designated as Group B, includes a number of the larger, urban ones. They make up 30.3% of the population of the country and have 26.0% of the nation's deaths from tuberculosis. The average mortality rate from tuberculosis is 39.4 deaths per 100,000 population and the ratio of beds per death is 1.90. Only four states in the group have fewer beds per death than the national average and such highly urban states as Rhode Island, Michigan, Connecticut, Massachusetts, and New Jersey have more than 2.0 beds per tuberculosis death.

The states in Group B spend an average of $667 per tuberculosis death with all but three of them spending more than the national average of $390. The states in this group make the heaviest outlays of any of the four groups for both state sanatoria and state subsidies to local sanatoria.

Group C - The 12 States With the Next to the Highest Mortality Rate

The third group of states, designated as Group C, includes one-third (33.6%) of the nation's population. Illinois is in this group, ranking 27th among the states. This group has slightly more than its share of the nation's deaths from tuberculosis, 34.7% of the total. Its ratio of beds to deaths is 1.39 beds with nine states, including Illinois, failing to reach the national ratio of 1.46 beds. The states in this group spend $263 per tuberculosis death.

Group D - The 12 States With the Highest Mortality Rate

Group D of the states, with 23.6% of the nation's population, had 32.6% of the nation's deaths from tuberculosis. In these states the mortality rate is 63.4 deaths per 100,000 population.

The tuberculosis beds provided by this group of states average 1.02 per death, seven states providing less than 1.0 bed per death. Group D, with nearly one-fourth of the country's population, provides 17.8% of the nation's state beds, 20.4% of the local beds, and 14.5% of the total state expenditures for tuberculosis control.

Table 3

Tuberculosis Mortality Rates in Relation to Sanatorium Facilities and State Expenditures

State	Population in 1940	Deaths in 1940	Mortality Rate Per 100,000 Population	Beds Exclusive of Federal		Approximate State Expenditures for Tuberculosis Activities	
				Number in 1942	Ratio Per Death in 1940	Annual Amount in 1939	Annual Expenditures Per Tuberculosis Death in 1939
United States	131,669,275	60,428	45.9	88,346	1.46	$24,122,600	$ 390
Group A - First 12 States Ranked According to Lowness of Mortality Rate							
Utah	550,310	89	16.2	106	1.19	78,200(a)	823(a)
Wyoming	250,742	42	16.8	33	0.79	37,100	675
Iowa	2,538,268	435	17.1	813	1.87	294,100	605
Nebraska	1,315,834	225	17.1	280	1.24	90,200	412
Idaho	524,873	95	18.1	43	0.45	24,600	248
North Dakota	641,935	124	19.3	368	2.97	227,700	1,604
New Hampshire	491,524	104	21.2	240	2.31	156,700	1,127
Kansas	1,801,028	448	24.9	626	1.40	319,300	764
Wisconsin	3,137,587	832	26.5	2,379	2.86	958,400	1,111
Minnesota	2,792,300	756	27.1	2,380	3.15	762,700	943
Oregon	1,089,684	297	27.3	681	2.29	334,600	1,036
South Dakota	642,961	189	29.4	192	1.02	182,900	963
Group A Totals and Averages	15,777,046	3,636	23.0	8,141	2.24	$ 3,466,500	$ 903

Table 3 (continued)

Tuberculosis Mortality Rates in Relation to Sanatorium Facilities and State Expenditures

State	Population in 1940	Deaths in 1940	Mortality Rate Per 100,000 Population	Beds Exclusive of Federal		Approximate State Expenditures for Tuberculosis Activities	
				Number in 1942	Ratio Per Death in 1940	Annual Amount in 1939	Annual Expenditures Per Tuberculosis Death in 1939
Group B - Second 12 States Ranked According to Lowness of Mortality Rate							
Maine	847,226	253	29.9	542	2.14	$ 485,500	$1,728
Rhode Island	713,346	236	33.1	783	3.32	462,000	1,737
Michigan	5,256,106	1,767	33.6	5,043	2.85	2,724,600	1,429
Connecticut	1,709,242	597	34.9	1,876	3.14	1,541,500	2,573
Massachusetts	4,316,721	1,629	37.7	4,069	2.50	1,995,100	1,210
Indiana	3,427,796	1,378	40.2	1,839	1.33	178,200	126
Montana	559,456	225	40.2	272	1.21	182,000	734
Ohio	6,907,612	2,792	40.4	4,082	1.46	122,800	42
Washington	1,736,191	707	40.7	1,061	1.50	401,500	566
Vermont	359,231	149	41.5	176	1.18	122,900	897
Pennsylvania	9,900,180	4,213	42.6	5,881	1.40	1,420,800	335
New Jersey	4,160,165	1,787	43.0	4,203	2.35	1,281,400	643
Group B Totals and Averages	39,893,272	15,733	39.4	29,827	1.90	$10,918,300	$ 667

Table 3 (continued)

Tuberculosis Mortality Rates in Relation to Sanatorium Facilities and State Expenditures

State	Population in 1940	Deaths in 1940	Mortality Rate Per 100,000 Population	Beds Exclusive of Federal		Approximate State Expenditures for Tuberculosis Activities	
				Number in 1942	Ratio Per Death in 1940	Annual Amount in 1939	Annual Expenditures Per Tuberculosis Death in 1939
Group C - Third 12 States Ranked According to Lowness of Mortality Rate							
Missouri	3,784,664	1,704	45.0	178	1.28	$ 659,100	$ 373.
West Virginia	1,901,974	876	46.1	1,226	1.40	610,900	693.
Illinois	7,897,241	3,654	46.3	4,690	1.29	1,600	0.44
New York	13,479,142	6,259	46.4	13,357	2.13	1,701,800	263.
Delaware	266,505	125	46.9	250	2.00	197,600	1,275.
South Carolina	1,899,804	900	47.4	927	1.03	252,000	296.
Oklahoma	2,336,434	1,126	48.2	768	0.68	295,200	274.
Mississippi	2,183,796	1,066	48.8	516	0.48	198,200	184.
Georgia	3,123,723	1,530	49.0	1,039	0.68	213,400	141.
North Carolina	3,571,623	1,783	49.9	1,901	1.07	459,400	255.
Arkansas	1,949,387	987	50.6	1,401	1.42	648,200	652.
Florida	1,897,414	960	50.6	878	0.91	332,100	360.
Group C Totals and Averages	44,291,707	20,970	47.3	29,131	1.39	$5,569,500	$ 263.

Table 3 (continued)

Tuberculosis Mortality Rates in Relation to Sanatorium Facilities and State Expenditures

State	Population in 1940	Deaths in 1940	Mortality Rate Per 100,000 Population	Beds Exclusive of Federal		Approximate State Expenditures for Tuberculosis Activities	
				Number in 1942	Ratio Per Death in 1940	Annual Amount in 1939	Annual Expenditures Per Tuberculosis Death in 1939
Group D - Fourth 12 States Ranked According to Lowness of Mortality Rate							
Alabama	2,832,961	1,499	52.9	502	0.33	$ 122,100	$ 79
Colorado	1,123,296	600	53.4	1,748	2.91	64,900	98
California	6,907,387	3,887	56.3	7,900	2.03	751,300	192
Virginia	2,677,773	1,557	58.1	1,682	1.08	798,300	494
Louisiana	2,363,880	1,391	58.8	959	0.69	140,400	101
Texas	6,414,824	3,797	59.2	2,331	0.61	546,200	140
Kentucky	2,845,627	1,982	69.7	752	0.38	150,000	75
Nevada	110,247	79	71.7	12	0.15	(b)	(b)
Tennessee	2,915,841	2,184	74.9	1,279	0.59	81,400	35
New Mexico	531,818	401	75.4	424	1.06	52,100	122
Maryland	1,821,244	1,441	79.1	1,819	1.26	723,700	561
Arizona	499,261	853	170.9	632	0.74	73.500	82
Group D Totals and Averages	31,044,159	19,671	63.4	20,040	1.02	$3,503,900	$ 175

Footnotes to Table 3

Source and Explanation of Certain Figures: U. S. Department of Commerce, Bureau of the Census, Vital Statistics Rates in the United States 1900-1940, p. 856 (for the population figures) and p. 330 (for the mortality rates); and Vital Statistics of the United States 1940, Part I, p. 416 (for the total deaths). Tuberculosis Sanatorium Directory, 1942, compiled by the National Tuberculosis Association, p. 176 (for number of beds and ratio per death). Public Health Reports, January 16, 1942, Vol. 57, No. 3, Tuberculosis Control by State Agencies by Joseph W. Mountin and Evelyn Flook, United States Public Health Service, p. 83 (for state expenditures).

Because there is usually a slight variation in mortality rates as reported by various sources, evidently due to a time lag in reporting and recording deaths, the Illinois mortality rates and the number of deaths as shown in this table have been taken from A Statistical Review of Recent Mortality and Morbidity Trends, Educational Health Circular No. 59 revised June 1, 1942, Illinois Department of Public Health, p. 10. This has been done in order to avoid confusion when the Illinois tuberculosis situation is discussed. In discussing the Illinois situation, the Illinois Department of Public Health figures are used.

The source from which the state expenditures have been taken is indefinite as to the year for which the annual amounts are reported. Since it will facilitate matters to have some year to refer to in discussing these amounts, the year 1939 has been arbitrarily selected. The source has used the deaths for the year 1939 in computing the annual expenditures per death. However, it may be that the annual amount for some of the states is for the fiscal year 1940 or 1939, or it may be for the calendar year 1940 or 1939. The source states in regard to the expenditure figures which it shows: "Expenditures for the services considered represent index rather than absolute amounts and include only expenditures allocated specifically to tuberculosis activities as such."

(a) "New program just getting under way. Expenditure reported represents only a fraction of a complete year."

(b) "No record of expenditures for tuberculosis as a separate activity."

The ranking of states used in the above classification should be interpreted with caution. Certain states, including such states as Colorado, California, Arizona, and New Mexico, probably have tuberculosis death rates that are affected by population mobility. Many tuberculosis patients have sought to find relief in the climate of these and other states. This has the effect of making the death rate in such states higher than would otherwise be the case.

Another caution should be noted regarding the ratio of beds, and expenditures, to tuberculosis deaths. These ratios are widely used and represent the best known method of indicating the provisions for tuberculosis control. However, it should be remembered that any factor which operates to affect the number of deaths will affect these ratios inversely. Thus a state, even with an extensive program of tuberculosis control, will appear to have a much less extensive program if, for any reason, the deaths suddenly increase. More careful reporting of the cause of death may produce this result if it results in more deaths being classed as due to tuberculosis. It would doubtless be better if the ratios were related to the number of tuberculosis cases but, in the absence of any approach to comprehensive case-finding, this would be ever more distorted.

The most striking conclusion from the classification of the states on the basis of tuberculosis deaths, beds, and expenditures is that, as stated above, "Public health is purchasable." The states with low death rates are, as a group, those which provide generously for tuberculosis control. It is true that, of these, the lowest mortality is found among the states with a high proportion of rural, white population. The various factors which determine the incidence of tuberculosis have been mentioned above. The comparison of the four groups of states demonstrates the part that tuberculosis control by the state plays in the situation. The tuberculosis control programs of a few states most likely to throw light on Illinois' problem will be analyzed.

Table 4

Beds and State Expenditures Specified by Type

State	Beds According to Type of Control (1942)				Approximate Annual State Expenditure by Type of Service		
	Federal	State	County, City & City-County	Private & Semi-Private	Maintenance & Operation of State Sanatoria	State Subsidy of Local Sanatoria	Field Control
Total	9,380 (9.6%)	25,634 (26.2%)	46,243 (47.3%)	16,469 (16.9%)	$16,764,486 (69.5%)	$6,407,573 (26.6%)	$950,541 (3.9%)
Group A - First 12 States Ranked According to Lowness of Mortality Rate							
Utah	- -	106	- -	- -	$ 78,200(a)	$ - -	$ (b)
Wyo.	- -	33	- -	- -	37,100	- -	(b)
Iowa	70	424	389	- -	263,220	- -	30,880
Nebr.	- -	200	80	- -	77,572	- -	12,628
Idaho	132	- -	- -	43	- -	21,697	2,903
N. D.	- -	368	- -	- -	227,700	- -	(b)
N. H.	- -	140	- -	100	85,872	70,828	(b)
Kans.	63	492	134	- -	310,360	- -	8,940
Wisc.	204	334(c)	1,929	116	263,560	694,840	(b)
Minn.	168	498	1,842	40(d)	312,707	435,502	14,491
Ore.	14	600	41	40	334,600	- -	(b)
S. D.	166	192	- -	- -	182,900	- -	(b)
Total	817	3,387	4,415	339	$ 2,173,791	$1,222,867	$ 69,842
Group B - Second 12 States Ranked According to Lowness of Mortality Rate							
Maine	6	481	- -	61	$ 431,610	$ 53,890	$ (b)
R. I.	- -	618	65	100	447,216	14,784	(b)
Mich.	44	704	2,975	1,364	471,356	2,250,520	2,724
Conn.	- -	1,657	74	145	1,458,259	40,079	43,162
Mass.	304	1,309	2,463	297(e;f)	1,398,565	482,814	113,721
Ind.	- -	402	1,437	- -	178,200	- -	(b)
Mont.	- -	258	9	5	182,000	- -	(b)
Ohio	238	254	3,196	632	122,800	- -	(b)
Wash.	676	- -	886	175	- -	399,894	1,606
Vt.	- -	132	- -	44	115,034	(g)	7,866
Penn.	93	3,186	1,349	1,346	1,344,077	- -	76,723
N. J.	- -	494	2,965	744	452,334	813,689	15,377
Total	1,361	9,495	15,419	4,913	$ 6,601,451	$4,055,670	$261,179

Table 4 (continued)

Beds and State Expenditures Specified by Type

State	Beds According to Type of Control (1942)				Approximate Annual State Expenditure by Type of Service		
	Federal	State	County, City & City-County	Private & Semi-Private	Maintenance & Operation of State Sanatoria	State Subsidy of Local Sanatoria	Field Control
Group C - Third 12 States Ranked According to Lowness of Mortality Rate							
Mo.	7	780	1,166	232	$ 578,690	$ 80,410	$ (b)
W. Va.	- -	1,109	65	52	577,301	23,825	9,774
Ill.	184	- -	3,882	808	- -	- -	1,600
N. Y.	1,242	1,035	8,695	3,627(h)	1,635,430	(b)	66,370
Dela.	- -	228	- -	22	197,600	- -	(b)
S. C.	- -	550	295	82	252,000	- -	(b)
Okla.	291	733	- -	35	286,344	- -	8,856
Miss.	- -	425	33	58	187,695	- -	10,505
Ga.	12	637	387	15	177,976	- -	35,424
N. C.	850	950(f)	793	158	459,400	- -	(g)
Ark.	- -	1,351	50	- -	636,532	- -	11,648
Fla.	6	400	435	43	313,502	- -	18,598
Total	2,592	8,198	15,801	5,132	$5,302,470	$ 104,235	$162,795
Group D - Fourth 12 States Ranked According to Lowness of Mortality Rate							
Ala.	35	- -	317	185	$ - -	$ 74,969	$ 47,131
Colo.	750	- -	68	1,680	- -	49,973	14,927
Calif.	1,025	- -	5,707	2,193	- -	731,766	19,534
Va.	88	1,053	519	110	672,967	50,293	75,040
La.	181	746	49	164	121,586	- -	18,814
Tex.	419	1,171	734	426	529,814	- -	16,386
Ky.	385	120	632	- -	113,550	31,800	4,650
Nev.	- -	- -	12	- -	- -	- -	(b)
Tenn.	9	- -	902	377	- -	10,012(a)	71,388
N. M.	791	86	- -	338	52,100	- -	(b)
Md.	10	1,283	280	256	502,972	75,988	144,740
Ariz.	917	95	192	345	66,591	- -	6,909
Total	4,810	4,554	9,412	6,074	$2,059,580	$1,024,801	$419,519

Source: Tuberculosis Sanatorium Directory, 1942, compiled by National Tuberculosis Association, p. 172. Public Health Reports, January 16, 1942, vol. 57, No. 3, Tuberculosis Control by State Agencies by Joseph W. Mountin and Evelyn Flook, United States Public Health Service, p. 87. For an explanation regarding

(continued on next page)

the state expenditures, see the footnotes under Table 3. The article on tuberculosis control also stated in regard to state expenditures: "State appropriations constitute the major item, but about one-fourth of the amount expended for field services is derived from Federal grants, whereas approximately 10 percent of the cost of hospitalizing tuberculous patients in State sanatoria is borne by local taxing bodies."

The total or national figures include the following for the District of Columbia: 1,196 county, city, and city-county beds; 11 private and semi-private beds; $627,194 for maintenance and operation of state sanatoria; and $37,206 for field control.

(a) "New program just getting under way. Expenditure reported represents only a fraction of a complete year."

(b) "No record of expenditures for tuberculosis as a separate activity."

(c) "Includes 48 beds in a rehabilitation camp for adult male convalescents."

(d) "Includes 18 beds in one institution which serves as a temporary home for arrested cases of tuberculosis during the period of their economic rehabilitation."

(e) "Includes 50 beds in one institution providing vocational training for those with arrested tuberculosis."

(f) "Also Orthopedic hospital; no specific number of beds for tuberculosis."

(g) "Included in the figure reported for State sanatoria."

(h) "Includes 54 beds in one institution for the rehabilitation of tuberculosis patients and 18 beds in a resident home for the temporary care of girls and women needing rehabilitation after the arrest of tuberculosis."

Wisconsin

Wisconsin has a state law establishing state tuberculosis sanatoria and a state tuberculosis camp and authorizing every county to establish a county sanatorium. The state and county sanatoria are under the supervision of the State Board of Health. The law further provides for an allocation of expenses between state and county for those patients who are unable to pay the cost of their maintenance, whether they are treated in a state or a county sanatorium.

A patient in Wisconsin who is unable to pay the cost of his care, either in a state institution or a county sanatorium, applies to the county judge of the county where he has a legal settlement. The county judge, upon report of the examining physician and a statement from the superintendent of the sanatorium that the applicant is eligible and can be received, shall hold a hearing to determine the legal settlement of the applicant, his general

financial ability, and the chargeability for the support of such person. If a person can pay the county charges but is unable to pay the full cost of maintenance in a sanatorium, he may receive care without a hearing before a county judge if, upon investigation by the State Board of Health, it is found that the patient has truly represented his circumstances.

For a patient at public charge in a state sanatorium in Wisconsin, the state pays all expenses but charges over to the county, in which such patient has his legal settlement, one-half the cost of his maintenance and the entire amount of all other expenses. For a patient at public charge in a county sanatorium, the state credits the county with $7 per week for each patient whose support is chargeable abainst the county; but if the patient's support is chargeable against some other county, then the state credits the county maintaining the patient with the total cost of the patient's maintenance and charges over to the other county the difference between the total cost and the $7 per week provided through state aid. Annual statements, by means of which accounts are settled between the state and the county, are prepared every July 1 by the State Board of Health and the superintendents of each county sanatorium.[6]

The Wisconsin law providing for tuberculosis sanatoria and other sections pertaining to the management of county institutions do not limit the amount of tax which a county may levy for the construction and maintenance of a tuberculosis sanatorium as is done by the Illinois Glackin Act. However, there is the Wisconsin general maximum county tax rate of one per cent of the total valuation of the county. This limitation does not apply to bonded indebtedness and to taxes, levied in counties having a population of 250,000 or more, for purposes of consolidation of municipal services.

Out of an expenditure of $958,400 spent for tuberculosis activities in 1939, Wisconsin spent 72.5% of this, or $694,840, as a "state subsidy of local sanatoria." The remaining 27.5%, or $263,560, was spent in maintaining and operating the state sanatoria. Wisconsin spent approximately $1,111 per tuberculosis death in 1939, which is nearly three times the national average. Wisconsin achieved a 49.1% drop in its mortality rate during the ten-year period from 1930 to 1940. The state's tuberculosis death rate in 1940 was 26.5 deaths per 100,000 population.

There are in Wisconsin 334 state beds which are distributed in a state sanatorium with a capacity of 241, in a state rehabilitation camp providing for 48 adult male convalescents, and in the Wisconsin General Hospital which provides for 45 tuberculosis patients. The weekly rate charged in 1942 by the Wisconsin State Sanatorium was $18.68, based on per capita cost while the weekly rate in the rehabilitation camp was $16.69 or per capita cost. The rate in the Wisconsin General Hospital was higher, with state-county patients paying $4.90 per day, inclusive; clinic patients, $6.00 per day; and private patients paying for room and care.[7]

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6. Wisconsin Statutes, 1943, Chap. 50, Chap 46, Secs. 46.18, 46.19, 46.20, and 46.21; Chap. 70, Sec. 70.62.

7. Tuberculosis Sanatorium Directory, 1942, compiled by the National Tuberculosis Association, pp. 155-161.

Wisconsin has a total of 1,929 county, city, and city-county beds. The weekly rates for county beds in 1942 ranged from $13.40 to $21.95, per capita cost. All beds in Wisconsin, exclusive of federal, give the state a ratio of 2.86 beds per tuberculosis death.

Wisconsin, which ranks 9th in the lowness of its tuberculosis death rate, has made sanatorium care the central activity in its program. It provides rather extensive facilities through a state subsidy granted to local sanatoria as well as providing state sanatoria. The expenditures of the state government on tuberculosis total almost a million dollars annually, a total exceeded by only six states, all of which, with the exception of Connecticut, have a considerably larger population.

Michigan

The state of Michigan has provided both state and county sanatoria for tuberculosis patients.[8] There are two state sanatoria with a capacity of 506 beds and a tuberculosis department with 98 beds in the University of Michigan Hospital. Fifteen county sanatoria and hospitals provide 2,975 beds.

The state sanatoria are under the control of the state Tuberculosis Sanatorium Commission, consisting of the State Health Commissioner and nine appointed members of whom at least five must be licensed physicians. In these sanatoria patients are admitted as private patients at a charge of $3.00 per day. If a patient is admitted as a charge of the county the state pays $2 per day with the county paying the balance (now $1 a day). The rate per day is fixed by the Sanatorium Commission. If the residence of the patient is in dispute, the State Department of Social Welfare is authorized to decide the issue.

Counties are authorized to establish sanatoria singly or in multiple-county units, and levy a tax not exceeding 1 mill for this purpose. While boards of trustees in such counties control the sanatoria therein, the State Commissioner of Health is empowered to establish standards to which they must conform. The state pays a subsidy of $2 per day for each free patient cared for in county sanatoria. Private patients pay for their own care. County sanatoria may accept outside patients and counties not maintaining sanatoria may levy a tax to pay their share of the care of indigent patients in state and county sanatoria.

Michigan spent $2,724,600 in 1942 on tuberculosis control with $2,250,520, or 82.9%, going as state subsidy to local sanatoria. Practically all the rest was spent on maintaining the state sanatoria, less then one-tenth of 1% going to field control. The state provided a total of 5,043 beds or 2.85 beds per tuberculosis death. Expenditures totalled $1,429 per tuberculosis death, far above the national average. The death rate from tuberculosis in Michigan was 33.6 deaths per 100,000 persons giving the state a rank of 15th in lowness of mortality rate. The rate in 1930 had been 61.1 deaths per 100,000 persons.

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8. Compiled Laws, 1929, Secs. 6641, 6992, 6996, 7014ff; 1940 Supplement, Secs. 7024, 7043.

The Michigan program, like that of Wisconsin, relies chiefly on sanatorium care as a measure of control. The state provides a generous subsidy to local sanatoria, spending more than a third of the national total for this purpose and more than any other three states combined. This subsidy is combined with the setting of standards by the state health commissioner.

Connecticut

The state of Connecticut has five state sanatoria with a total of 1,657 beds.[9] There are no county sanatoria but three local tax-supported hospitals have facilities for a total of 74 tuberculosis patients. In all, the state has 3.14 beds per tuberculosis death. The sanatoria are controlled by the state Tuberculosis Commission. Patients are expected to pay for their care, which averages about $30 per week, if they, or their relatives, are able to do so. If not able to pay the full amount, they are expected to pay what they can, at least $4 a week. If unable to pay this minimum amount the town or city of the patient's residence must supply a sum to assure the receipt of the $4 a week minimum. If the patient is a resident of Connecticut, but his legal residence in a town or city is not determined, the state will assume the cost of his care.

The Tuberculosis Commission conducts case-finding, clinical service, rehabilitation, health education and all other phases of the tuberculosis program. The expenditures total $1,541,500, of which $1,458,259, or 95.8%, is devoted to maintaining the state sanatoria. A small subsidy is given to local hospitals.

Connecticut in 1940, had a tuberculosis mortality rate of 34.9 deaths per 100,000 persons compared to a rate of 61.2 in 1930. The state ranks 16th in lowness of its mortality rate. The distinctive feature of the program is the fact that state sanatoria are relied upon almost exclusively to provide tuberculosis care.

Massachusetts

The state of Massachusetts maintains a state sanatorium program in addition to providing a subsidy for local sanatoria.[10] Today there are five state institutions capable of caring for 1,309 patients and 16 local tax-supported sanatoria and hospitals with 1,994 beds for tuberculosis patients. This provides 2.50 beds for each tuberculosis death.

The state sanatoria are controlled by the Division of Tuberculosis in the Department of Public Health. Patients are charged $7 per week and, if not financially able, this sum is charged to the city or town of residence.

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9. General Statutes of Connecticut, 1930, Secs. 2626ff; Supplement, Secs. 1004-1006c; 938e; 447ff.

10. Annotated Laws of Massachusetts, vol. 3, ch. 111, secs. 57ff.

Massachusetts further requires by statute that all counties and cities of 50,000 population or over must provide and operate tuberculosis sanatoria or contract with other counties or with the state for the care of persons in need of hospitalization. The state pays a subsidy amounting to $5 per week for each patient cared for in a local sanatorium which meets the standards of the Department of Public Health.

The cost of the subsidy paid in 1942 was $482,814 while the cost of operating the state sanatoria was $1,398,565. In addition, Massachusetts spent $113,721 on field control, the next to the highest amount spent by any state.

Massachusetts is one of the most highly urbanized states in the country. Despite this handicap its death rate from tuberculosis in 1940 was 37.7 deaths per 100,000 persons, somewhat below the national figure. The rate in 1930 was 64.2 deaths per 100,000 population. The expenditures for tuberculosis control amount to $1,210 per death. The whole program is characterized by the balance between the various types of tuberculosis expenditures.

Indiana

In Indiana there are two state sanatoria, nine county sanatoria, and one city hospital with special provision for tuberculosis patients.[11] The number of beds totals 1,839, with 402 in the state sanatoria and 1,437 in the local institutions. This is a ratio of 1.33 beds per death, slightly below the national average.

The state sanatoria are controlled by a board of trustees. The state provides no subsidy to local sanatoria nor does it make any specific appropriation for field control. The total state expenditures for tuberculosis control amount to $178,200, an average of $126 per death.

The mortality rate from tuberculosis was, in 1940, 40.2 deaths per 100,000 persons. In 1930 it had been 68.2 deaths per 100,000 persons.

The Indiana program is an example of the use of both state and local sanatoria with the local sanatoria being maintained without a state subsidy.

Ohio

Ohio has one state sanatorium, fifteen county sanatoria, three district sanatoria serving a total of thirteen counties, and two city hospitals with special facilities for tuberculosis patients.[12] The state sanatorium provides 254 beds, the tax-supported local institutions provide 3,196 beds, and, in addition, private sanatoria supply 632 beds making a total of 4,082 beds, a ratio of 1.46 beds per death.

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11. Burns' Indiana Statutes, Annotated, 1943 Supplement, Title 22, Chs. 33, 34, 35, 37.

12. Baldwin's Ohio Code, 1936, Secs. 1835, 2052-72, 3139ff; 1943 Supplement, Sec. 3139.

The state sanatorium provides only for minimal or ambulatory patients. The patient, if able, is required to pay not less than $5 per week and not more than $25 per week for his care. If the patient is not able to pay the minimum, this amount is charged to the county of his residence. The state sanatorium is managed by the Department of Public Welfare.

The expenditure of $122,000 in 1942 for the state sanatorium represented Ohio's entire state appropriation to tuberculosis control. The local sanatoria receive no state subsidy, nor are any funds specifically allocated to field control. The state expenditures amount to $42 per tuberculosis death.

The mortality rate in Ohio fell from 64.1 deaths per 100,000 persons in 1930 to 40.4 deaths per 100,000 persons in 1940. The state's program is similar to that of Indiana except that it provides fewer beds in the state sanatoria.

Pennsylvania

There are three state sanatoria in Pennsylvania having a total capacity of 3,186 beds.[13] This represents the most extensive state sanatorium program in the United States. In addition there are eight county and city institutions providing a total of 1,349 beds, and 19 private institutions with a total of 1,346 beds. The state total is 5,881 beds, or 1.40 beds per tuberculosis death.

The state sanatoria is controlled by the Bureau of Tuberculosis Control within the Department of Health. A special Division of Sanatoria within the Bureau has immediate supervision of the sanatoria. Only "indigent citizens" of the state are admitted to the state sanatoria, the term "indigent" being construed to mean citizens unable to pay for treatment in private sanatoria. No payment is received from any patient. The state expended in 1942, the sum of $1,344,077 in these institutions. No state subsidy is paid to local institutions, but $76,723 was spent for a comprehensive program of field control. Some 90 clinics are in operation throughout the state and approximately 50,000 persons are examined annually.

Pennsylvania's mortality rate from tuberculosis fell during the decade of 1930-40 from 61.5 to 42.6 deaths per 100,000 persons. The expenditures average $335 per tuberculosis death. The characteristics of the Pennsylvania program are the extensive provisions for state sanatoria, the absence of a state subsidy to local sanatoria, and the comprehensive program of field control.

New Jersey

New Jersey has one state sanatorium of 494 beds, fourteen county and city institutions with a total of 2,965 beds, and nine private institutions

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13. Purdon's Statutes, Title 16, sec. 442, Title 35, sec. 381, Title 62, secs. 1200ff., 1701ff., Title 72, sec. 3461.

with a total of 744 beds.[14] The total number of beds is 4,203, or 2.35 beds per tuberculosis death.

The New Jersey statutes make the counties responsible for the care of their tuberculosis patients. Each county is required to erect and maintain a sanatorium or to contract with the state or other counties for the care of their patients. Patients in any case pay for their care if able to do so. If not, they are admitted as "indigents." The state pays a subsidy of $6 per week for each "county indigent patient" and $12 per week for each "state indigent patient," cared for in a local hospital. A "county indigent patient" is one who has resided in the county at least 5 years; a "state indigent patient" has lived in the state a year but has not resided in a county for 5 years.

The subsidy involves an annual expense of $813,689, while the cost of maintaining the state sanatorium amounts to $452,334. In addition, $15,337 is spent on field control services. Total expenditures are $1,281,400 or $643 per tuberculosis death.

The death rate fell during 1930-40 from 67.8 to 43.0 deaths per 100,000 persons. The program is similar to Massachusetts in its balanced character although in New Jersey the local sanatoria are emphasized while in Massachusetts the largest expenditure is for the state institutions.

Missouri

There is one state sanatorium of 780 beds in the state of Missouri.[15] In addition there are six county and city institutions with a total of 1,166 beds. Three private sanatoria with a total of 232 beds bring the state's total facilities to 2,178 beds or 1.28 beds per tuberculosis death.

The state sanatorium is under the control of the Board of Managers which controls various other state institutions. The annual expenditures amount to $578,690. The state grants a small subsidy, amounting to $80,410 to local institutions. No funds are specifically allotted to field control. Total expenditures amount to $659,100 or $373 per tuberculosis death.

The tuberculosis death rate fell from 70.6 deaths per 100,000 persons to 45.0 deaths per 100,000 during the decade 1930-40. The Missouri program is, so far as the state is concerned, one that emphasizes the state sanatorium.

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14. Revised Statutes, 1937, Title 30, Ch. 1, secs. 7, 14, Ch. 4, secs. 23ff., Ch. 9, secs. 55ff.

15. Revised Statutes, 1939, Secs. 9258, 9379-86, 15172ff.

New York

The New York program for tuberculosis control has developed under a series of statutes, which make a confused pattern.[16] However, the statutes represent an attempt to meet different needs of different areas in ways that are most appropriate.

One of the four existing state sanatoria was established in 1904. A few years later counties were authorized to establish sanatoria and still later, those with a population of 35,000 or more were required to construct sanatoria or make other provision for tuberculosis patients. Still later, after a health survey had revealed the need for additional sanatoria in a number of counties with relatively small populations, three additional state sanatoria were constructed. Special legislation for New York City had meanwhile been enacted and, in addition, three counties located near the metropolitan districts, were granted special legislation. The result, necessarily, involves some complexity.

The four state sanatoria are, in reality, district institutions serving the less populous counties. Each serves a district of seven or eight counties and, while any resident of the state may be admitted, preference is given to residents of the sanatorium district.[17] Three of these sanatoria charge $17.50 per week which must be paid by the county if the patient is unable to do so.[18] The four sanatoria supply a total of 1,035 beds and cost $1,635,430 per year for maintenance.

The 41 county and municipal sanatoria provide a total of 8,695 beds of which 3,949 are in New York City. There is no state subsidy for their support but, until 1944, the patient was required to pay for his care if able to do so. In 1944, an act was passed which eliminated this requirement in 23 out of the 27 counties supporting county sanatoria. Any patient may be allowed to pay for his treatment in whole or in part if the patient wishes to do so.

In all, New York has 13,357 beds for tuberculosis patients, a ratio of 2.13 beds per death. The sum of $66,370 was spent in 1939 on field control. The total state expenditures amounted to $1,701,800, or $263 per tuberculosis death. The death rate from tuberculosis was 46.4 deaths per 100,000 persons in 1940, a reduction from 71.6 deaths per 100,000 persons 10 years earlier. The New York program is one in which responsibility for care rests chiefly on the local governments without subsidy, but with the state providing for the less populous counties.

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16. Thompson's Laws, 1939, County, secs. 45ff, 330; Public Health, secs. 3a, 337ff, Public Welfare, sec. 86, General City, secs. 140ff; 1941 Supplement, p. 709; 1942 Supplement, p. 848.

17. In Ray Brook Hospital, the first sanatorium established, all residents are admitted without preference. In addition, unlike the other sanatoria, the care is free. However, only minimal cases are admitted.

18. A bill to make admission to all state sanatoria free except to patients offering to pay was passed by the one house of the State Assembly in 1944 but failed to pass the other.

California

California is, like Illinois, one of the small group of states which does not maintain one or more state sanatoria.[19] However, the state does provide a substantial subsidy to county institutions of which there are 37, providing a total of 5,707 beds.[20] Four of these institutions are formed by the consolidation of the tuberculosis functions of two or more counties, one institution serving 13 counties. Most of the local sanatoria provide free care although some charge for the care of the patients able to pay. The state subsidy amounts to $3 per week per patient, an expenditure amounting to $731,766 in 1939.

Private sanatoria provide 2,193 beds giving a total for the state of 2.03 beds per death. Expenditures by the state amount to $192 per death.

The death rate in California is doubtless affected by the movement of tuberculous persons from other states into California. In 1940 the rate was 56.3 deaths per 100,000 persons having fallen from 99.1 deaths per 100,000 in 1930. The state control program, except for small sums spent on field control, is exclusively a subsidy to local institutions.

Summary

The examination of state programs for the control of tuberculosis leads to an appreciation of the importance of an adequate state program. Except for the variations produced by the factors of urbanization, racial differences, and economic status, the state's death rate from tuberculosis is closely related to the adequacy of the state's tuberculosis control program. The provision of proper sanatorium care for patients, and the existence of an adequate program of field control, are major factors in determining the death rate.

State sanatoria are maintained in 41 states; county, city, and city-county sanatoria exist in 37. There are private sanatoria in 37 states also. Exactly half the states have all three types. Illinois is one of seven states which have only local sanatoria. It is the only one of this group which fails to subsidize the local institutions.

In all, 21 of the 37 states which have local publicly-supported sanatoria, provide subsidies from state funds. In many instances the subsidy is an instrument of control which permits the state to enforce its standards of proper sanatorium care.

All states maintain some degree of field control activity although only 30 list it as a separate appropriation item. Amounts spend on field control varied, in 1939, from $1,600, in Illinois, to $144,740 spent in Maryland.[21]

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19. There are only 7 states in this group now. The others are Alabama, Colorado, Nevada, Tennessee, and Washington.

20. General Laws, 1937, Act. 6255, 6258; Codes of California, 1939, Health and Safety Code, secs. 3099-3342.

21. Illinois did not establish a Division of Tuberculosis Control until 1942. Its appropriations for the 1943-45 biennium total $44,960.

Tuberculosis Control in Illinois

The early efforts to establish tuberculosis control in Illinois centered very largely in Chicago. In 1894, a pavilion to segregate tuberculosis patients was established in the Cook County Poorhouse. Shortly afterward some provision was made for special types of tuberculosis patients in two or three Chicago hospitals. In 1900 a tuberculosis clinic was founded in Chicago.

The first hospital provision for patients in downstate Illinois, and the first sanatorium in the state, was a tent colony opened at Ottawa in 1904. The following year a camp was established at Glencoe.

In 1898 the secretary of the Illinois State Board of Health had proposed the establishment of a state sanatoria. This recommendation failed of adoption. During the following decade there was a steadily growing demand for legislation to aid the fight against the disease. In Chicago the Tuberculosis Committee of the Visiting Nurses Association, established in 1903, was instrumental in founding the Chicago Tuberculosis Institute (1906). The Illinois Society for the Prevention of Tuberculosis (now the Illinois Tuberculosis Association) was established in 1905 and, in that year, began to finance tuberculosis control activity through the sale of seals. In 1908 and in 1915 the legislature passed the Glackin Acts, still the cornerstone of our state control program.

Features of the Illinois Program

While the state of Illinois is one of the few states which have not established state sanatoria, and is the only state which has not provided either state sanatoria or state subsidy of local sanatoria, certain features of the Illinois program deserve mention.

In the first place the responsibility in the Illinois system has rested on the county and, in the case of the larger cities, on the city. While this responsibility has been voluntary, a total of 82 counties and 3 cities have accepted the task of providing for tuberculosis patients at public expense. In each case this has been done by means of a popular referendum, indicating that the citizens are aware of the problem and concerned with its solution.

In the second place, the Illinois program has been based on the willingness of the tuberculosis patient to voluntarily enter a sanatorium for treatment. No compulsory or "quarantine" provisions have been made which would require the confinement of patients against their consent. The evidence of many sanatoria is that the unwilling patient is a great detriment to the proper functioning of the sanatorium. He does not cooperate in the regimen of living necessary for his own recovery; instead he endangers the recovery of other patients and lowers the morale of the whole institution.

Thirdly, Illinois has always recognized tuberculosis as a public health problem. Treatment in all public sanatoria is free to the patient, although the Glackin Laws permit the sanatorium boards to receive donations.

Since tuberculosis is of extended duration, it always places a financial burden on the patient and his family. To require them to pay for his care would, in many cases, make such care impossible.

In the fourth place, the Illinois program has been greatly aided by the work of voluntary, private organizations. The Illinois Tuberculosis Association, The Illinois Trudeau Society, The Tuberculosis Institute of Chicago and Cook County, The Illinois Medical Society, and other organizations have worked consistently and intelligently in strengthening the program. Much of the success in securing favorable votes on the county referenda, has been due to their efforts.

Finally, the Illinois Department of Public Health has always dealt with this problem and recently has expanded its activities in the field most successfully. While the Department always performed many field services in tuberculosis control, a separate Division of Tuberculosis Control was not established until 1942. This was partially the result of the report on "Public Health in Illinois" published following a study made by the American Public Health Association. This same study the so-called "Buck Report", also recommended the construction of state sanatoria.

Glackin Laws

The General Assembly has adopted a number of statutes to provide sanatorium care for tuberculosis patients. They are usually called the Glackin Laws, after the original sponsor of the statutes. The laws provide for the following types of sanatoria:[22]

(1) Any county may levy a tuberculosis control tax by vote of the people and use the proceeds either to maintain a sanatorium or otherwise to care for persons suffering from tuberculosis. (Ch. 34, sec. 164ff.)

a. Such tax, designated "Sanatorium Tax," may be within the statutory tax limit.

b. By vote of the people, such levy, called an "Excess Tax," may be in addition to the statutory limit.

In either case the rate shall not exceed 1½ mills.

This provision has been adopted by 82 counties of which group 67 have voted the "Excess Tax". However, only 18 of these counties actually operate county sanatoria.[23]

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22. The location of these sanatoria, and the tax basis of the various counties are shown in Maps A and B which appear in the appendix. See also Tables 5 and 6.

23. See Table 5 and Map A. The tax basis is shown in Map B and the taxes collected in Table 6.

(2) Any city may maintain a tuberculosis sanatorium and levy a special tax therefor. (Ch. 24, sec. 72).

Chicago, Peoria, and Rockford have taken advantage of this statute.

(3) That portion of any county lying outside a city maintaining a sanatorium may be organized into a tuberculosis district. (Ch. 23, sec. 177a).

This has been done in Peoria County. It would be applicable to Cook County outside Chicago.

(4) Any two or more contiguous counties may form a tuberculosis sanatorium district. (Ch. 34, sec. 175).

This has never been used.

The 21 county and municipal sanatoria set up under the Glackin Acts and the facilities of the 9 private institutions in Illinois provide a total of 4,725 tuberculosis beds. The standards of care, and the cost, vary considerably in the different institutions. The Division of Tuberculosis Control of the Illinois Department of Public Health has recently attempted to secure voluntary adherence to approved standards of care in the various sanatoria. This has been only partially successful.

State Tuberculosis Sanatoria for Illinois?

While the state of Illinois is one of the seven states which have not established state tuberculosis sanatoria, the plan has been frequently under consideration. The study made by the American Public Health Association in 1942[24] included as one of its 12 "Major Recommendations" that the state construct and maintain one or more tuberculosis sanatoria. In 1944, an advisory committee of the Department of Public Health brought in a similar recommendation.

The Department of Public Health has recommended to the Illinois Post-War Planning Commission the following: (1) Four state tuberculosis sanatoria of 150 to 200 beds each to be located "approximately" in Union, Wayne, Coles, Carroll or Whiteside Counties. (2) A Cook County Tuberculosis Sanatorium of 1,500 to 2,000 beds.

The Executive Board of the Illinois Statewide Public Health Committee on August 30, 1944, adopted a motion "that the Executive Board recommend the construction of state owned and operated tuberculosis sanatoria as follows: Four sanatoria of 200 beds each for the State outside of Cook County, one sanatorium of 2,000 beds for Cook County."

Dr. E. F. Steinkopff, M.D., former head of the Illinois Division of Tuberculosis Control, recommended, in a letter of March 30, 1944, to the Illinois Legislative Council, the construction of "several state owned

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24. Published under the title "Public Health in Illinois," N. Y., 1942.

Table 5

Illinois Counties Showing Cases Reported and Deaths from Tuberculosis in 1943, and also Sanatorium Facilities

County	Tuberculosis Deaths, 1943*	Cases Reported, 1943*	Cases Reported in Highest Year, 1932-43*	Number of Sanatoria	Total Beds for Tuberculosis
Adams	10	45	68	1	50
Alexander	18	38	132	1	100
Bond	3	4	15	0	0
Boone	3	1	12	0	0
Brown	2	4	11	0	0
Bureau	7	22	37	0	0
Calhoun	3	4	9	0	0
Carroll	2	7	31	0	0
Cass	5	8	24	0	0
Champaign	6	33	67	1	40
Christian	13	32	52	0	0
Clark	3	3	23	0	0
Clay	9	16	28	0	0
Clinton	3	5	15	0	0
Coles	4	16	44	0	0
Cook	2,082	5,882	6,492	8	2,653
Crawford	3	19	23	0	0
Cumberland	3	4	12	0	0
De Kalb	4	20	28	1	33
De Witt	3	7	19	0	0
Douglas	4	13	14	0	0
Du Page	19	49	90	2	186
Edgar	4	10	43	0	0
Edwards	2	4	6	0	0
Effingham	3	10	20	0	0
Fayette	6	8	24	0	0
Ford	1	5	24	0	0
Franklin	22	31	53	0	0
Fulton	7	41	60	0	0
Gallatin	4	11	17	0	0
Greene	2	5	16	0	0
Grundy	6	8	21	0	0
Hamilton	8	11	15	0	0
Hancock	3	8	17	0	0
Hardin	8	14	15	0	0

Table 5 (continued)

Illinois Counties Showing Cases Reported and Deaths from Tuberculosis in 1943, and also Sanatorium Facilities

County	Tuberculosis Deaths, 1943*	Cases Reported, 1943*	Cases Reported in Highest Year, 1932-43*	Number of Sanatoria	Total Beds for Tuberculosis
Henderson	2	3	5	0	0
Henry	5	13	45	0	0
Iroquois	4	18	24	0	0
Jackson	13	17	54	0	0
Jasper	3	4	17	0	0
Jefferson	6	20	30	0	0
Jersey	3	3	8	0	0
Jo Daviess	1	1	10	0	0
Johnson	3	1	11	0	0
Kane	51	77	284	1	85
Kankakee	114	139	327	0	0
Kendall	2	2	8	0	0
Knox	6	14	37	0	0
Lake	30	101	179	1	100
La Salle	21	44	91	2	208
Lawrence	2	5	24	0	0
Lee	35	76	76	0	0
Livingston	5	12	52	1	50
Logan	19	56	56	0	0
Mc Donough	5	12	32	1	36
Mc Henry	3	15	28	0	0
Mc Lean	11	39	73	1	56
Macon	13	56	170	1	80
Macoupin	10	24	40	0	0
Madison	50	155	279	1	99
Marion	13	29	36	0	0
Marshall	1	7	7	0	0
Mason	5	11	15	0	0
Massac	19	27	27	0	0
Menard	5	4	11	0	0
Mercer	1	2	23	0	0
Monroe	2	2	6	0	0
Montgomery	8	29	41	0	0
Morgan	24	41	96	1	40
Moultrie	2	5	10	0	0

Table 5 (continued)

Illinois Counties Showing Cases Reported and Deaths from Tuberculosis in 1943, and also Sanatorium Facilities

County	Tuberculosis Deaths, 1943*	Cases Reported, 1943*	Cases Reported in Highest Year, 1932-43*	Number of Sanatoria	Total Beds for Tuberculosis
Ogle	2	12	35	0	0
Peoria	48	191	435	1	103
Perry	1	3	23	0	0
Piatt	1	3	11	0	0
Pike	4	14	23	0	0
Pope	4	4	14	0	0
Pulaski	9	14	32	0	0
Putnam	1	4	4	0	0
Randolph	14	11	46	0	0
Richland	5	7	12	0	0
Rock Island	39	62	158	1	76
St. Clair	65	145	188	1	103
Saline	7	23	43	0	0
Sangamon	25	93	175	2	285
Schuyler	1	5	10	0	0
Scott	—	2	8	0	0
Shelby	6	7	57	0	0
Stark	1	2	12	0	0
Stephenson	2	10	35	0	0
Tazewell	9	23	73	1	45
Union	21	26	128	0	0
Vermilion	30	88	127	1	54
Wabash	5	9	12	0	0
Warren	4	9	18	0	0
Washington	3	11	11	0	0
Wayne	4	17	17	0	0
White	7	23	23	0	0
Whiteside	6	12	47	0	0
Will	36	107	141	1	89
Williamson	17	47	65	0	0
Winnebago	21	218	321	1	124
Woodford	—	3	19	1	15

* As reported to the Illinois Department of Public Health, Statistical Office. The data for 1943 are "provisional". Cases are reported according to county of "residence". It should be noted that inmates of various state institutions are listed as "residents" of the county in which the institution is located.

tuberculosis sanatoria..... As a beginning it is believed that two should be erected in southern Illinois, one in the vicinity of Randolph, Perry or Jackson counties and the other in the vicinity of Wayne, Hamilton, or White counties. In addition to these, another institution, perhaps of two hundred beds is needed in the northwest corner of the state. Cook County should have more beds available."

These recommendations, and those of other groups, have been based on two major facts: (1) the inadequate geographical distribution of facilities with some sections of the state almost without tuberculosis beds, and (2) the fact that the state, as a whole, does not have enough beds to meet the standard of two beds per tuberculosis death.

The geographical areas of the state which show the greatest lack of sanatorium facilities are the counties in the north-western part of the state, those in the central-western part, and those in the southern third.[25] In the first group are the counties of Jo Daviess, Stephenson, Carroll, Ogle, Whiteside, Lee, Henry, Bureau, Putnam, Marshall, Stark, Knox, Mercer, Warren, Henderson, and Hancock. In these 16 counties there were, in 1943, a total of 202 cases of tuberculosis reported and there were 79 tuberculosis deaths.[26] The patients requiring sanatorium care from this group of counties were cared for, so far as possible, in sanatoria located in near-by counties. Eleven of the 16 counties levied the sanatorium tax to provide funds for this purpose. Only Jo Daviess, Putnam, Marshall, Warren, and Hancock, with a total of 29 cases and 10 deaths made no public provision for sanatorium care.

In the central-western part of the state there is a group of 11 counties without sanatorium facilities. These are Fulton, Mason, Schuyler, Cass, Menard, Brown, Scott, Pike, Greene, Calhoun, and Jersey. In 1943, this group had a total of 101 cases reported and 37 deaths. It is likely that the sanatoria in neighboring counties took care of most of these patients except, of course, in Brown, Calhoun, and Jersey counties where the sanatorium tax is not levied. These counties had a total of 11 cases reported and 8 deaths.

The greatest need for sanatorium facilities is clearly in the southern tier of counties. In the entire state south of Decatur, Springfield, and Jacksonville, only 3 sanatoria exist. These are in Madison, St. Clair, and Alexander counties. Forty-one other counties have no tuberculosis facilities, and the situation is further affected because the sanatoria in Madison and St. Clair counties are not able to accept out-of-county patients.

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25. See Table 5.

26. It should be noted that something over one-third of the cases and deaths occurred in Lee County and many of these were inmates of the Dixon State Hospital.

Table 6

Tuberculosis Taxes in Illinois Counties, 1942 and 1943*

1940 Population		Taxes for Tuberculosis Sanatorium	
Population Under 10,000		1942	1943
Putnam	5,289	$ . . .	$ . . .
Hardin	7,759	. . .	. . .
Pope	7,999	. . .	. . .
Brown	8,053	. . .	. . .
Scott	8,176	797	880
Calhoun	8,207	. . .	. . .
Stark	8,881	4,624	4,797
Henderson	8,949	. . .	4,312
Edwards	8,974	. . .	. . .
Population 10,000 to 15,000			
Menard	10,663	. . .	. . .
Johnson	10,727	. . .	. . .
Kendall	11,105	2,729	2,888
Gallatin	11,414	5,854	6,780
Schuyler	11,430	8,957	9,440
Cumberland	11,698	. . .	10,789
Monroe	12,754	. . .	. . .
Marshall	13,179	. . .	. . .
Jasper	13,431	. . .	. . .
Hamilton	13,454	13,110	13,182
Moultrie	13,477	20,534	24,183
Jersey	13,636	. . .	. . .
Wabash	13,724	. . .	. . .
Bond	14,540	17,621	19,701
Piatt	14,659	7,335	6,500
Massac	14,937	. . .	. . .

* As compiled by the Taxpayers' Federation of Illinois. Municipal taxes for sanatoria, in effect in Chicago, Peoria, and Rockford, are not included. Sixteen counties, viz: Menard, Jasper, Carroll, Douglas, Crawford, Ogle, Randolph, Jefferson, McHenry, Jackson, Stephenson, Whiteside, Henry, Knox, Tazewell, and Peoria, have adopted sanatorium tax provisions but levied no taxes during 1942 and 1943 for this purpose. In some cases these counties have operated on balances from previous years and in other cases the charges for sanatorium care have been paid from the general fund of the county.

Table 6 (continued)

Tuberculosis Taxes in Illinois Counties, 1942 and 1943

1940 Population		Taxes for Tuberculosis Sanatorium	
Population 15,000 to 20,000		1942	1943
Ford	15,007	$ 9,631	$ 9,850
Boone	15,202	14,830	15,291
Mason	15,358	. . .	18,171
Washington	15,801	14,498	7,528
Pulaski	15,875	. . .	. . .
Cass	16,425	21,687	22,972
Richland	17,137	18,746	12,576
Douglas	17,590	. . .	. . .
Mercer	17,701	9,126	8,324
Carroll	17,987	. . .	. . .
DeWitt	18,244	3,531	4,021
Grundy	18,398	. . .	25,580
Clark	18,842	1,040	1,061
Clay	18,947	15,000	17,267
Woodford	19,124	32,486	22,615
Jo Daviess	19,989	. . .	. . .
Population 20,000 to 25,000			
White	20,027	18,131	17,963
Greene	20,292	. . .	2,453
Lawrence	21,075	. . .	. . .
Warren	21,286	. . .	. . .
Crawford	21,294	12,729	16,791
Union	21,528	. . .	. . .
Effingham	22,034	. . .	22,846
Wayne	22,092	21,076	19,169
Clinton	22,912	. . .	. . .
Perry	23,438	. . .	. . .
Edgar	24,430	. . .	. . .
Population 25,000 to 30,000			
Pike	25,340	10,613	17,980
Alexander	25,496	20,927	21,147
Shelby	26,290	13,013	15,992
Hancock	26,297	. . .	. . .
McDonough	26,944	9,349	11,374
Fayette	29,159	14,614	14,386
Logan	29,438	6,931	7,709
Ogle	29,869	. . .	. . .

Table 6 (continued)

Tuberculosis Taxes in Illinois Counties, 1942 and 1943

1940 Population		Taxes for Tuberculosis Sanatorium	
		1942	1943
Population 30,000 to 35,000			
Iroquois	32,496	$29,536	$31,178
Randolph	33,608	. . .	. . .
Jefferson	34,375	. . .	. . .
DeKalb	34,388	29,809	28,935
Montgomery	34,499	35,147	38,467
Lee	34,604	19,241	24,519
Population 35,000 to 40,000			
Morgan	36,378	15,266	16,076
McHenry	37,311	. . .	. . .
Bureau	37.600	25,691	. . .
Jackson	37,920	. . .	. . .
Saline	38,066	16,646	18,520
Coles	38,470	31,882	33,836
Christian	38,564	32,979	34,862
Livingston	38,838	. . .	32,659
Population 40,000 to 50,000			
Stephenson	40,646	. . .	. . .
Whiteside	43,338	. . .	. . .
Henry	43,798	. . .	. . .
Fulton	44,627	41,028	47,011
Macoupin	46,304	34,917	38,917
Marion	47,989	21,046	40,303
Population 50,000 to 60,000			
Williamson	51,424	. . .	. . .
Knox	52,250	. . .	. . .
Franklin	53,137	26,510	29,443
Tazewell	58,362	. . .	. . .

Table 6 (continued)

Tuberculosis Taxes in Illinois Counties, 1942 and 1943

1940 Population		Taxes for Tuberculosis Sanatorium	
		1942	1943
Population 60,000 to 75,000			
Kankakee	60,877	$ 29,199	$ 34,647
Adams	65,229	43,910	44,064
Champaign	70,578	56,732	58,962
McLean	73,930	57,850	64,672
Population 75,000 to 100,000			
Macon	84,693	61,851	65,737
Vermilion	86,791	82,566	82,200
LaSalle	97,801	96,799	103,931
Population 100,000 to 125,000			
DuPage	103,480	92,113	92,682
Rock Island	113,323	68,524	72,794
Will	114,210	87,648	107,744
Sangamon	117,912	90,387	96,583
Lake	121,094	127,202	133,311
Winnebago	121,178	18,355	20,150
Population 125,000 to 175,000			
Kane	130,206	69,764	73,985
Madison	149,349	89,881	101,226
Peoria	153,374	. . .	. . .
St. Clair	166,899	173,389	181,006
Downstate Totals	3,833,899	1,955,387	2,184,938
Cook	4,063,342	. . . .	. . . .
State Totals	7,897,241	$1,955,387	$2,184,938

In the 41 southern Illinois counties without tuberculosis facilities there were, in 1943, a total of 576 cases reported and 286 deaths. Twenty-eight of these counties levied a tax and attempted to find accomodations for their patients in other counties.[27] Many patients did not obtain sanatorium care. In 13 counties of this area, no tax was levied. These counties had a total of 160 reported cases and 92 deaths.

In most of these southern Illinois counties, as well as in many counties throughout the state, the number of patients in a single county is too small to justify the construction and maintenance of a sanatorium. It was with this in mind that the General Assembly provided, in 1939, for a sanatorium district to be formed by two or more contiguous counties. This provision, however, has not been used to date.

Beside the inadequacy of the facilities in certain areas, the state as a whole lacks sufficient tuberculosis beds. There are now provided some 4,725 beds in the state, 2,653 in Cook County and 2,072 in the rest of the state. In 1943 there were 8,666 reported cases and 3,180 deaths. The number of cases reported exceeded the total number of beds by nearly 4,000.[28]

In Cook County the cases reported totalled 5,882 and the deaths 2,082 compared with the number of beds which was 2,653. This has led the Department of Public Health to recommend that the state construct and maintain a sanatorium with 1,500 to 2,000 beds in Cook County as well as four smaller sanatoria downstate. The American Public Health Association recommended, in 1942, that a Cook County sanatorium of 2,000 beds be constructed but suggested that it be a county, rather than a state, institution.

The recommendation of an institution of 2,000 beds has been seriously questioned. Dr. E. R. Steinkopff, former Chief of the Division of Tuberculosis Control, believes that no institution should have more than 500 beds.[29] The Illinois Tuberculosis Association suggests[30] that, instead of a 2,000 bed institution, it would be better to have several sanatorium units of 150 to 200 beds each.

The control program in Chicago and Cook County is, at present, most extensive. The Chicago Municipal Sanitarium, established in 1915 under the Glackin Act, consists of the Sanatarium proper (capacity 1,200 beds), the North Riverside Branch (capacity 256 beds), and seven dispensaries, (registration 46,250, including contacts and observation cases). The case-finding techniques include the use of the chest x-ray which, since 1940, has been used in examining 170,119 persons, with a yield of 5,331 new cases. The value of this techniques is shown by the fact that 2,820 cases, or 55.6%, were minimal and likely to result in cures.

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27. Two additional counties in this group voted in November, 1944, to levy such tax beginning in 1945.

28. Of course, not all cases require sanatorium care. In addition, the state provides some facilities in the penal and welfare institutions. On the other hand, there are a very large number of cases that are not discovered and are not reported. In some counties the deaths exceed the cases indicating the inadequacy of case-finding and reporting.

29. Letter to the Illinois Legislative Council, March 30, 1944.

30. Editorial in Contact, October, 1944.

The Cook County Tuberculosis Hospital at Oak Forest has a capacity of 598 and maintains a staff which renders considerable out-patient service. The Cook County Hospital in Chicago has a separate building for tuberculosis patients with a capacity of 377. Besides these there are several private sanatoria with some 250 additional beds. Neighboring counties also provide some facilities for private patients.

There are certain administrative problems which occur because of the peculiar character of the Cook County program. Some attempts to secure coordination of the activities of the various agencies in the County are at present underway. In addition, the Chicago Medical Society and the U. S. Public Health Service are studying the nature of an over-all county-city program. The Executive Board of the Illinois State-wide Public Health Committee, meeting August 30, 1944, voted to "throw the weight of its influence on the coordination of tuberculosis work in Cook County."

Whatever the nature of the administration, the need for additional beds in Cook County is clear.

The A.P.H.A. report, and the recommendations of the Illinois Department of Public Health, agree that state sanatoria should be administered through the State Department of Public Health. In the 41 states which have state sanatoria the administration is lodged with the health department in 15 states, in the welfare department in 7 states, in special sanatorium boards in 8 states, and in various other agencies in the other 11. .

If state sanatoria should be established the question arises concerning the method of financing the care of patients. Illinois, from the date of the Glackin Act, has followed the principle of free treatment of patients. This was based on the belief that a comprehensive program of care was much more likely to be secured if tuberculosis care was available to all patients regardless of their financial ability. All of the county and municipal sanatoria have always been free. The statutes permit their boards to accept gifts and donations but they are not permitted to charge for care.

Since the Illinois program has always been based on the county, it has been suggested that the state sanatoria be fitted into the picture on a similar financial basis. This would entail charging the cost of care to the county of the patient's residence. Such charges, sometimes fixed by statute, are in effect in many of the states having state sanatoria. In some cases the full cost, which averages from $18 to $30 per patient per week, is assessed against the county of residence; in other cases the county pays only a part of the cost and the state assumes the rest.

Under such provisions, it is essential that the statute provide clearly for a method of determining the county of residence. In some states this power is lodged with the Director of the Department of Public Health. Other states state a county residence qualification but provide that those who do not meet the requirements in any county shall be cared for at state expense.

The argument has been advanced[31] that the need for beds is greatest in counties which can least afford to pay for the care of their patients. On

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31. H. V. Hullerman, M.D., "Control of Tuberculosis", Illinois Medical Journal, Vol. 79, No. 2, pp. 126-132. (February, 1944).

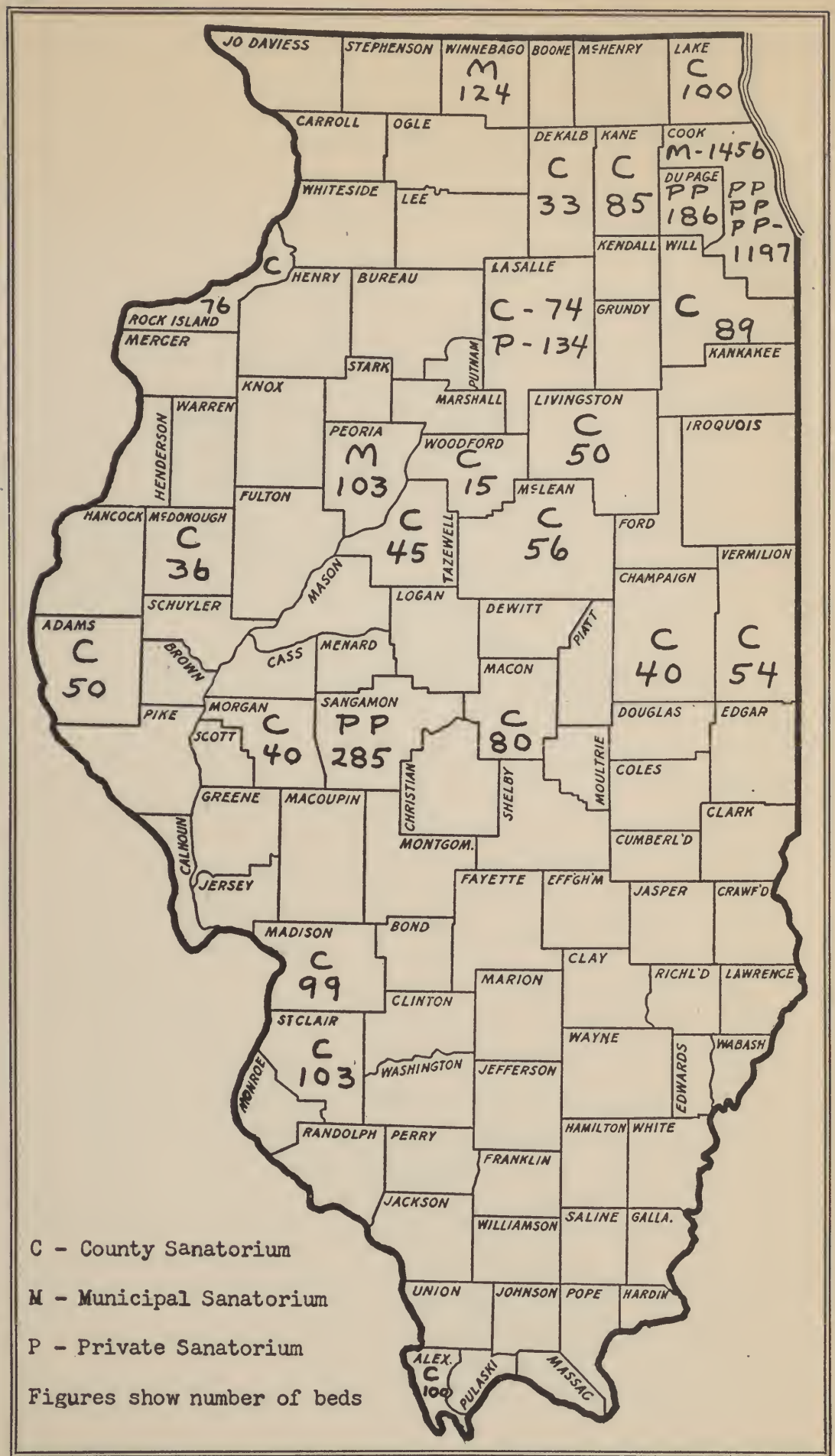
other hand, the Illinois Tuberculosis Association has assembled data to show that any county which votes the taxes authorized by the Glackin Acts would be able to pay for the care of their patients if facilities were available. It may be that a system by which the state and the county share the cost would be most satisfactory. If such plan should be adopted, it would follow logically that the state should pay a similar share of the cost of caring for patients in established sanatoria. This would be a subsidy system such as is used in many states. One advantage accruing to such a plan is that it would permit the State to establish standards for sanatorium care by denying the subsidy to institutions which are below standard.

Penal and Welfare Institutions

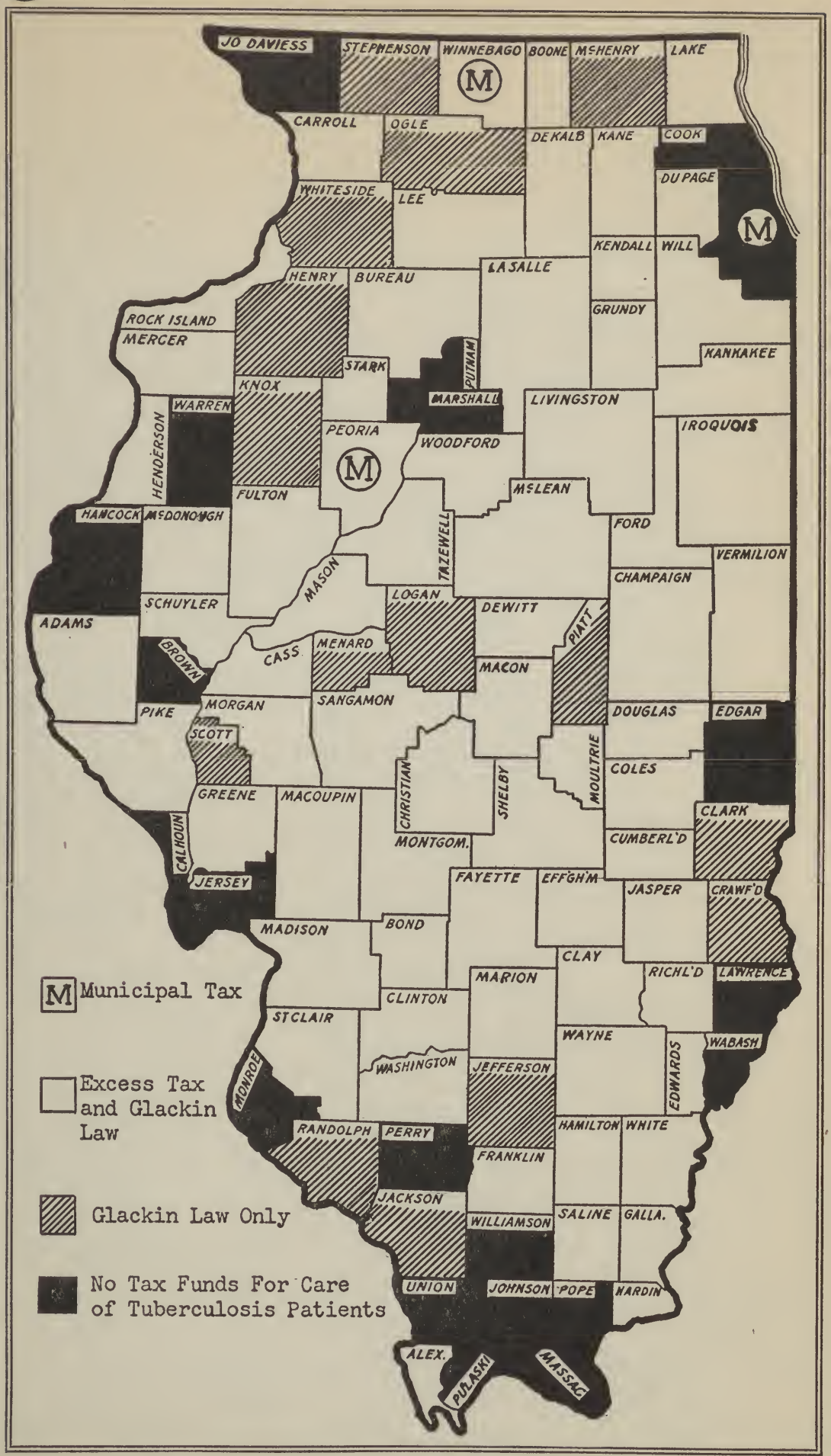
One aspect of the problem which is of some importance concerns the provisions made for tuberculosis patients in the state penal and welfare institutions. Illinois, in common with 40 other states, has provided special facilities of this nature. All eleven of the state mental hospitals provide beds for tuberculosis patients. These beds total about 1,500, varying all the way from 25 to nearly 600. At the Kanteno hospital, where between 550 and 600 tuberculosis patients are cared for, special facilities have been provided. When possible, patients from other institutions are transferred there. However, the Illinois Department of Public Welfare feels its facilities are inadequate and has requested the Illinois Post-War Planning Commission to approve the construction of a special 1,000 bed tuberculosis sanatorium for the Kankakee hospital and a 600 bed sanatorium for the Alton Hospital. If this were done, the Department would transfer practically all tuberculous patients from the other hospitals to these two maintaining only small provisions for observations and preliminary treatment. In its program the Department of Public Welfare has consistently sought the advice and assistance of the Department of Public Health.

In the Illinois prisons special provision for tuberculous inmates has also been made. Some facilities are provided at Menard and Stateville but, in 1938, a central tuberculosis hospital for penitentiary inmates was constructed at Pontiac. This hospital is equipped for all modern diagnostic and collapse therapy procedures. Most of the tuberculosis patients among the inmates of all Illinois penitentiaries are now cared for there.

MAP A. TUBERCULOSIS SANATORIA IN ILLINOIS, 1944



MAP B. TAX BASIS FOR TUBERCULOSIS CONTROL, 1944



Note: There is a municipal tax in Chicago but no special tax in the remainder of Cook County. Some money is appropriated from the General Fund.